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Refugees and Transportation In Vermont: Travel Behaviour and Critical Questions Based on Gender, Age, and Transportation Hierarchies

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REFUGEES AND TRANSPORTATION IN VERMONT: TRAVEL BEHAVIOUR AND CRITICAL QUESTIONS BASED ON GENDER, AGE AND TRANSPORTATION HIERARCHIES

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EXECUTIVE SUMMARY

This study examines the travel behaviour and attitudes of recently resettled refugees in Chittenden County, Vermont, with particular attention to distinctions based on gender and age. It is based on an earlier project conducted between 2008-2012 that examined transportation practices amongst recently arrived refugees in Vermont as a generalized group. One of the findings from that initial study was that more in-depth research was necessary in order to understand the ways in which mobility and access to transportation impact specific parts of the refugee population, especially women, children and the elderly. Drawing on qualitative research methods using techniques such as interviews, focus groups, and surveys, this current study examines what kinds of possibilities and various exist to full mobility for these sub sets of the refugee population. In addition one of the key goals of this project was to examine what particular mode choices were favored by refugees both within the larger community but also within these subgroups of the population.

The study found that there are indeed some significant differences based on age and gender of travel patterns, choices and options for men, women and seniors in the newly resettled refugee communities. In particular while both women and the elderly within refugee families often had nominal access to a car, very few had driver's licenses and most described a dynamic where male family members were the primary (or only) drivers. Women and the elderly also showed greater levels of willingness to embrace alternative modes of travel, especially walking and using transit than the general male refugee population. However, both groups echoed the sense within the refugee community as a whole that private vehicle ownership was an important component of a successful acculturation experience. They explained this due to the greater levels of independence, flexibility, and self-sufficiency that cars provided in their lives.

Several key themes also emerged out of this research and interviews that highlight the experience of refugee women and seniors in Vermont with regard to transportation. These include the impact of the climate and distance to destinations as important factors in their transportation choices, the sense of opportunities both gained and lost as a result of the mode of travel, the significance of adequate transport for achieving better resettlement outcomes, the challenges of car ownership, the aspiration for car ownership, and the sense of dependency that emerges out of gendered and age-related limitations on mobility.

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OVERVIEW AND BACKGROUND

This study is designed to examine the travel behaviours and attitudes of several sub-groups within the officially resettled refugee population in Vermont. In particular, it explores the impacts of various opportunities, limitations, and barriers on the resettlement and acculturation experiences of women and the elderly within the diverse refugee communities placed by a federal program in Vermont that has operated since the late 1980s. This study has focused specifically on those refugees who have arrived since 2001, primarily from Africa and Asia (in particular Bhutan and Somalia). As well, one of the key objectives of this project has been to examine in greater detail the culture of travel amongst refugee communities and whether transportation hierarchies and preferences for certain mode choices are linked to the expectations of better outcomes and experiences of acculturation and resettlement by newcomers to Vermont.

The study has proceeded in several phases. The first has involved returning to and re-examining an existing data set of travel behaviour and attitudes amongst these same recently resettled refugees – collected by the PI from an earlier community based study conducted between 2008-2010 – and disaggregating the data by variables including gender and age. The intention has been to understand whether there exists any differences between men and women and between generations within the refugee community when it comes to transportation behaviours and preferences and if so what these might be.

Both service providers and refugees themselves often make anecdotal claims that there are gendered and age-related dimensions to refugee mobility, assertions echoed by the broader literature on mobility (e.g. Hanson, 2010; Fernando and Porter, 2002; Law, 1999; Kwan, 1999). This study has sought to re-evaluate the PI's earlier research on travel behaviour amongst recently resettled refugees in Vermont to identify trends that would bear out such assertions or alternatively call them into question. As part of a broader inquiry into refugee mobility and its impact on acculturation and resettlement, this study has also been interested in examining whether there are specific preferences for particular modes of travel within the refugee communities and amongst these various sub-groups and the re-examination of the existing data set has therefore also focused on mode choice and transportation hierarchies amongst the particular sub-groups.

The second phase of the current study has involved using qualitative research methods to move beyond the survey and explore in greater depth the specific attitudes and practices of representative members of these sub-groups. To do so the research team conducted interviews with 30 female refugees as well as a series of focus groups with elderly refugees over the age of 55 to examine respectively issues of gender and age. Both sets of populations in the interviews and focus groups had participated in the earlier survey and had indicated their willingness to take part in further research.

The Original Study: Refugees and Transportation in Vermont

This research project builds on a study entitled "Transportation, Equity and Communities at Risk: Refugee Populations and Transportation Accessibility in Vermont", a project undertaken between 2008-2010 by the PI with support from the UVM Transportation Research Center and the US Department of Transportation. Drawing again on qualitative research – including interviews and participant observation with service providers, community leaders, and a number of refugees, a review of both academic literature and the popular press, an analysis of relevant demographic and economic data, and a pair of surveys of both refugees and service providers – the study gave considerable insight into the nature and the number of challenges facing refugees in Vermont with respect to transportation.

The main finding of this initial study was that the inability to reach certain locations at certain times had specific and potentially highly detrimental impacts on the resettlement experiences of newcomers to Vermont. The inability of refugees to get to jobs, schools, shopping, and medical appointments – either on time, or in some cases at all – played a major role in adding to the stresses of adjusting to a new place and a new society. The pilot study made some initial policy recommendations including:

1. Improving communication between local transportation agencies as well as planning authorities with refugee communities and service providers,
2. Organizing van or carpool shuttles with employers for underserved locations
3. Organizing special stops by transit authorities for underserved locations
4. Providing an expanded, low (or no) cost bus pass system for refugees
5. Improving driver's education opportunities for refugees

These recommendations came in particular out of consultation with the participants in the extensive surveys with both the refugee communities and the service providers. These two surveys – with 300 and 32 respondents respectively – constitute a rich data set from which to draw more information about the transportation needs and behaviour of refugee populations and after conducting the surveys (and considerable complementary research including interviews with a wide range of key informants), the findings from the initial study were presented to refugee community members, leaders, and service provider organizations through several venues including published reports made available in electronic and hard copy form, presentations at community meetings, and the provision of data to aid in advocacy efforts (e.g. efforts to secure more appropriate bus service for refugee needs, the need to build a sidewalk to a local supermarket, and outreach efforts by local alternative transportation organizations with the refugee communities). The initial study and feedback from presenting the findings indicated that further research needed to be done regarding several specific aspects of the refugee population; namely, the more particular impacts of transportation in terms of age, gender and culture. It is in order to address these gaps that this current research has been undertaken.

Differentiated Patterns of Travel: Gender and Age

Central to this study is the well-established notion that travel behaviour is diverse according to a range of variables including gender, age, and class, amongst other characteristics. Such distinctions are not merely apparent and notable; they have clearly observable and often negative impacts upon socioeconomic outcomes including health, employment opportunities, self-sufficiency, and education. In the context of rural transportation in the so-called developing world, for example, Fernando and Porter suggest that "women often carry a heavier burden in terms of time and effort spent on transport, and that, with less access and control over resources, they have fewer opportunities than men to use transport technologies that could alleviate their burden" (2002: 2). Similarly, Kwan's research (1999) on access to urban opportunities (in terms of job access) indicates specific gendered distinctions based on space-time constraints and locational proximity. Hanson (2010) argues that in fact mobility and gender are inextricably intertwined and initiatives meant to support and imagine new modes of sustainable transportation must take such relationships into account. Other research has highlighted the dual impacts of both aging and gender on the ability to lead an active life amongst senior populations within urban settings; in Dupuis, Weiss and Wolfson's study (2007), three times as many female respondents as men reported limitations to their lifestyles as a result of barriers to their mobility. More generally, many studies suggest that constraints on mobility have adverse impacts on healthy aging (Frank, Kerr, Rosenberg and King, 2010; Bittner, Fuchs, Baird and Smith, 2011).

Our research with the refugee population settled in Vermont echoed such sentiments. Indeed both service providers and refugee participants alike voiced the concern that a broadly based survey aimed at all refugees might not get at the differential impacts of transportation barriers felt by women. Many participants suggested that more research was needed to understand whether women used particular modes of transportation more or less than men, and whether they felt their resettlement experience affected in different ways than for male members of their communities. Given the traditionally less prominent social positions occupied by women in certain of the refugee communities, it is important to understand whether these patterns are being reproduced in their new homes and perhaps even intensified due to transportation limitations or if conversely, new forms of mobility are creating new forms of social interaction and freedom.

Similarly, an important issue raised during our initial study is that barriers to transportation have specific impacts based on age. For more elderly participants, the inability to reach medical facilities, for example, was listed as a growing concern (as seen in the case of the relocation of popular cardiology and physical therapy clinics to a site primarily accessible by car). For others, a lack of mobility – especially given the climate of northern Vermont – played a major factor in the ability of elderly refugees to socialize and placed limitations on where they would be able to live. On the other end of the spectrum, many concerns were raised during the initial study that children were being denied access to extra-curricular activities

and educational enrichment programs because of barriers they encountered due to transportation. Many participants reported having to drop their children off late and pick them up early from school, resulting in missed opportunities. The current project originally set out to look, therefore, at the impacts of transportation on both of these populations, the elderly and children, as a way of better understanding the relationship between age and transportation amongst refugees in Vermont. As the study evolved, however, barriers to accessing minor children and a growing number of seniors being resettled meant that the project focused exclusively on seniors in the area of aging and mobility. The research team determined that the issues of children and mobility within the refugee population remain important but need to be taken up separately and potentially in a dedicated study.

Finally, the question of culture that became apparent through the course of the pilot study was not that of a specific ethnic group's transportation behaviour or needs per se but rather the issue of travel behaviour and preference for mode of transportation vis-à-vis the resettlement and immigration process. The surveys and interviews began to give some interesting insight into refugee preferences and perspectives on various modes of travel with a focus on automobiles, public transit, walking and bicycling. A key concern amongst many respondents was the accessibility and affordability of driver education and licensing. The study also made clear that a transportation hierarchy is attached to the process of immigration, one that moves from walking to public transit to private car ownership. Such a pattern is in direct challenge to many of the notions of sustainable transportation – especially as alternatives to car culture – favoured by many urban and transportation planners. As such examining the culture of and preference for car travel amongst refugees was a key component of this study.

Immigrants and Mobility

While mobility as a concept seems integral to the very notion of a migrant or immigrant, it is generally understood in relation to population flows, the crossing of borders or engagement in various transnational practices. The study of transportation services and access for immigrants and refugees – while widely recognized as a crucial part of the acculturation process amongst both service providers and the communities themselves – is less prominent in the literature. More recently several important analyses of immigrant travel behaviour have begun to more systematically highlight the crucial role that mobility plays in the acculturation process (Tal and Handy, 2010). For example, Blumenberg and Smart (2010) and Lovejoy and Handy (2011) demonstrate the utility of carpooling by recent immigrants in California as a way of strengthening social networks and overcoming shared obstacles. Chatman and Klein (2009) illustrate the reliance of foreign-born populations on bicycling, public transit, walking, and shared private transportation as a way of adjusting to the demands of a new environment. Similar studies in Canada indicate a high use of transit amongst immigrants (Heisz and Schellenberg, 2004) and indeed Lo, Shalaby and Alshalalfah argue explicitly that

"transit needs to be recognized as a key ingredient for the success of the immigrant settlement process" (2011: 470).

Of particular note is the work by Blumenberg and Smart (2010) on immigrants and travel, which argues that immigrants tend to form household carpools and favour using carpools in significantly larger numbers than the native-born. The authors raise the similar issue of transportation hierarchies in their study to the questions that this project seeks to explore. As with other scholars of transportation and immigration, Blumenberg and Smart base much of their research on an analysis of the 2001 National Household Travel Survey (Purvis, 2003; Logan, Zhang, and Alba, 2002). Chatman and Klein (2009), in their examination of immigrants and travel demand in the US, and in their later study of demographic changes and their effects on transit patterns in New Jersey, supplement an analysis of the same data set with qualitative research including interviews and focus groups to illuminate their results. In addition to looking at the question of ethnicity and race, the authors also conduct a microanalysis on the basis of gender and age in their study.

These studies focus, however, on very different types of migrants – in the case of the US almost exclusively undocumented and labor migrants (such as Mexican migrants in California) – or on economic and 'traditional' migrants settling in gateway cities and metropolitan areas like New York, Vancouver, Toronto and Los Angeles. This emerging body of work, while examining more systematically the impact of transportation on immigrants and newcomers does not address the specific and particular context of officially resettled refugees. Unlike other forms of migration, officially recognized refugees are both provided with more state support than other immigrants but simultaneously are subject to an arguably higher level of control and regulation in terms of their location and spatial options.

Of the limited number of studies that speak to refugee experiences directly, the majority focus on the adverse effects of that constrained mobility plays in their lives. For example, transportation barriers appear as amongst the most significant challenges to accessing both employment and healthcare for Burmese Karen refugees in Texas (Mitschke, Mitschke, Slater and Teboh, 2011). In Neidell and Waldfogel's (2009) research on immigrant children in Head Start programs across the US, parental access to transportation emerged as an important factor for low rates of participation. Outside of the North American context, Abdelkerim and Marty (2012) highlight in their study of refugees and immigrants from Africa in Australia the deleterious impact that a lack of personal mobility has had on self-sufficiency and political agency. Similarly, Uteng suggests that "constrained mobility [is] a constitutive factor of social exclusion" (2009: 1057) in the case of non-Western immigrant women in Norway. Such work has all made important contributions to the overall examination of transportation and equity issues for newcomers, an emergent field to which this study on adds.

STUDY DESIGN AND DATA COLLECTION

This two-year (2010-2012) project built on the earlier study referenced above and like it is community-based in nature and uses mixed-methods in its approach. This has meant working closely with a number of partner organizations – especially the Vermont Refugee Resettlement Program and the Association of Africans Living in Vermont – in order to define key questions, refine research instruments, collect data, and provide feedback to the various affected communities through a range of various venues. The PI acted as lead researcher, with help from several research assistants and staff in the Department of Geography and the Transportation Research Center at the University of Vermont.

This study is action-oriented, participatory, and community-based in both design and execution. This has meant working in partnership with various organizations, providing opportunities for feedback and revision of approaches, techniques and instruments, and providing data for the needs identified by participants and affected communities, including policy formulation and providing tools and data for advocacy where relevant. The main research approach employed during the course of this research has been to use mixed methods (though primarily focused on qualitative instruments) drawing on data collected via three main tools: a survey, in-depth semi-structured interviews, and small focus group discussions. Participants in the first of these methods were generated through a semi-random sampling of recently resettled refugees, while those who took part in the interviews and focus groups were survey respondents that had agreed to participate in these follow-up activities.

There are numerous reasons for adopting a mixed rather than purely qualitative or quantitative approach to this study. The relatively small numbers of the refugee population vis-à-vis the broader community in which they are situated necessitates 'digging deeper' into the available data – which, given the small numbers of people involved, may not in fact be available at all. Indeed, given Vermont's relatively small population even broader research measures of transportation behaviour such as the National Household Travel Survey needs to be adjusted and addressed through a oversampling of the Vermont population in order to develop a more accurate sense of the local travel patterns. In a similar vein, a more in-depth survey of a specific population coupled with interviews and focus groups can help to triangulate richer and more detailed data to help answer key research questions than might otherwise be possible through general census information or other data currently collected.

The key questions at the heart of this project re-examined the original survey with the filters of gender and age applied and followed this analysis by asking female and elderly members of the refugee community to comment on their experiences with transportation and their daily lives. Through these methods we asked what challenges they faced, what possibilities they saw, and what gaps might

they identify in existing transportation infrastructures. One of our broader interests was also in the attitudes towards transportation hierarchies within the refugee communities. What modes of transportation did female and senior refugees have access to, what did they favour and what might they prefer for the future, and why?

As is often the case with community-based and participatory research, some elements of the research design changed as the project evolved and in response to feedback from participants. Perhaps the most deviation from the original design was the decision not to focus on youth and children in this study. The original study had identified impacts on children below the age of 17 – a significant demographic amongst resettled refugees more generally and certainly amongst many of the African refugees who had arrived in Vermont between 2001-2007 – of transportation barriers. This had included a lack of access to pre- and after-school activities, increased responsibilities for older children to help younger siblings get to school, inability for older children to take up part-time jobs, and reduced participation in recreational, athletic and cultural activities. However, as the study began, our focus shifted to a different section of the population, although the question of age remained important. In part this was due to logistical reasons – working with children under the age of consent meant negotiating with school bureaucracies and parents alike to gain access. The PI determined that the type of questions the project sought to answer – on specific impacts on educational opportunities – could be answered in part in the context of interviews with female refugees, the majority of whom have children. This is not to imply that gaining the perspectives of children themselves is not important; rather, this area requires further research and potentially a stand-alone project to conduct adequate further inquiry.

Perhaps the more relevant reason for switching the specific populations who would be the subject of our study on age and mobility within the refugee population was that the resettlements between 2008-2010 (and beyond) have brought a population that is unique to refugee placements in Vermont – a substantial population over the age of 55 – close to two hundred in number, and almost all of Bhutanese origin. Such a large number of elderly refugees are unprecedented as first time arrivals in Vermont and local agencies and organizations are scrambling to meet their needs, with language training, citizenship classes, healthcare and transportation amongst the most pressing issues. In the first re-examination of the earlier survey, we discovered that a significant number of those who were older had been included in our random sample. For such reasons, the PI chose to conduct research amongst this population on the question of mobility and aging.

Study Site

Vermont ranks 49th amongst US states in population and is also the second whitest state (after Maine), with over 96% of the population listed as white (US Census Bureau, 2011). Much of the population growth during the last census period consists of in-migration into the state, primarily refugees settled in the

northwestern part of the state. Refugees have been arriving in Vermont since the 1980s, mirroring in many ways the national resettlement patterns seen across the US. This has meant successive waves of resettlement including Southeast Asians during the late 1980s, Central Europeans during the 1990s, and African groups from approximately 2000 onward (Portes and Rumbaut, 2006; VRRP, 2012). The largest refugee populations currently in Vermont are Bosnians and Vietnamese, with significant numbers of Somali Bantu, Congolese, Sudanese, Meskhetian Turks, Iraqis, Bhutanese, and Burmese also present (VRRP, 2012). The last three groups represent the most recent intake to arrive in large numbers since 2008. While the absolute numbers of refugees in Vermont is small compared to states such as California, Texas, or New York, the program has had a successful history, with close to 6000 refugees settled since 1987, almost entirely in Chittenden County, in towns such as Burlington, South Burlington, Winooski, Essex Junction and Colchester (VRRP, 2012).

Table 1: Refugee Arrivals in Vermont by Country of Origin

Country of Origin	Arrival Dates	Population
Bosnia	1994-2004	1705
Vietnam	1989-2002; 2005	1069
Mezkhetian Turk	2005-2008	164
Azerbaijan	2003-2006	34
Sudan	1998; 2001-2009	138
Kosovo	1999	58
Congo	2000-2009	242
Iraq	1994-1995; 2008-2010	197
Somalia	2003-2010	638
Rwanda	2005	18
Burundi	2004-2009	116
Togo	2001-2009	28
Burma	2008-2010	253
Bhutan	2008-2010	1289
Other	1989-2010	620
TOTALS	**1989-2010**	**5477**

Source: Bureau of Population, Refugees and Migration, US Department of State, 2013

One of the main challenges for resettlement is the fact that Vermont, as a primarily rural state without major cities of the size seen in other regions and with a demographically homogenous population, is not a traditional immigrant destination. In-migration has historically come from French Canadian communities to the north, as well as from England, Ireland, and other parts of the US. Thus, refugee resettlement programs cannot rely on many of the same institutions and organizations that have provided social services that immigrant networks and service providers have developed in gateway cities or even many of the secondary destinations that have become prominent in the past decade. Therefore, while the small scale and progressive politics of Chittenden County and Vermont may be quite attractive to refugees there remain many challenges. One is the issue of isolation. Many refugees find themselves to be a small community in an apparently

racially and culturally homogenous state like Vermont. Some are still dealing with the after-effects of PTSD caused both by the reasons for their flight from their home country and the extensive and stressful process of refugee determination.

For some there are significant language barriers, especially for historically disadvantaged groups such as the Somali Bantu or Burmese Karen. In other cases the presence of so many small groups often makes it difficult to provide adequate services—for example, finding translation for 25 or perhaps even 5 people from a given community is a significant problem. Yet resettlement agencies, refugees and scholars alike have little in the way of a systematic understanding of the complexities of these dynamics because at present the major measure of success in resettlement is employment. It is precisely because self-sufficiency lies at the heart of US refugee policy that acquiring a job has taken precedence over acquiring language skills, adequate shelter, healthcare coverage, civic engagement, and a myriad of other factors that are central to social integration. This means that for small and mid-sized destinations like Chittenden County, determining both the opportunities for future newcomers and the carrying capacity for towns in the region to absorb the influx is based on incomplete data.

Transportation issues have long been a particular concern for refugees across the globe, not only in the US, as access to a variety of destinations is of paramount importance for a successful resettlement experience. Within Vermont these issues are of particular significance in the current context, with increasing numbers being resettled each year, and the major destinations (such as Burlington, South Burlington, Essex, and Winooski-Colchester) already strained to their capacities to accommodate newcomers. For those refugees already in Vermont, transportation has already proved to be somewhat lacking. But recently announced federal plans to resettle new refugees in other Vermont towns raises new questions and concerns regarding transportation for such populations.

Research Approach

This project is meant to examine more closely what various sub-groups of the refugee communities and individuals identified as the impacts of transportation on their resettlement experiences. Of particular interest was whether results differed if the broader survey data were to be disaggregated by factors such as age and gender. Our team therefore applied filters to the already collected survey data to determine whether results were different depending upon the respondents being male, female, or over the age of 60, respectively. Each question and its responses were analysed in terms of these variables and further compared to the general population's travel patterns. Because of Vermont's relatively low population and the particularities of the study site region, the 'general population' used as a baseline was neither the US population as a whole, nor the state's but rather the county's. Chittenden County is unlike the US as a whole due to its relative racial homogeneity; however, within Vermont it stands out as the most diverse region within the state. It is the place, moreover, where 98% of refugees have been

resettled within Vermont. The project drew on a 2012 study of travel behaviour of the general population of Chittenden County conducted by the regional planning body for its baseline comparisons.

While re-examining the surveys helped to provide a good sense of the general trends of refugee transportation by gender and age, qualitative interviews were chosen as a primary tool for investigating at a deeper level the impacts of travel by these variables. Between January and July 2012 the principal investigator with assistance from an experienced graduate research conducted 30 interviews with refugee women and 10 interviews with elderly refugees (from across the various resettled communities) on their travel behaviour. Each of the interviews took place at a mutually convenient location (often the subject's home or the PI's office) and lasted approximately one hour in length. They consisted of a set of 10 semi-structured questions that were open ended and left considerable room for additional contributions by each participant (see Appendix A). Each interview was then transcribed by the graduate assistant or the principal investigator, and was later coded and analysed using qualitative software.

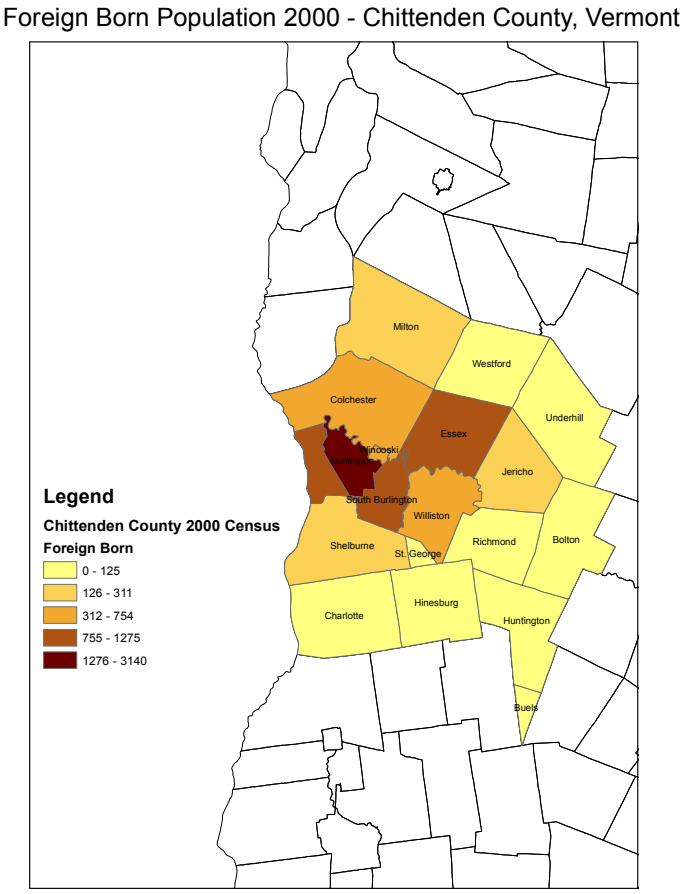
Those interviewed had previously participated in the refugee transportation survey and had indicated their willingness to take part in follow-up research. The graduate research assistant was especially helpful in recruiting interviewees from amongst the female refugee population who had participated in the earlier survey, having previously worked as a caseworker for the Vermont Refugee Resettlement Program and as an organizer with female refugees assisting them with employment culturally significant activities and with housing.

Finally, the project also drew material gathered regarding transportation issues affecting elderly refugees from the results of several focus groups conducted by the Vermont State Refugee Coordinator's office specifically on the needs of this population. Unlike interviews with the refugee seniors who had been interviewed and completed the earlier survey, the majority of the refugees who participated in these focus groups were primarily from the Bhutanese Nepali community. Of three focus groups conducted, for example, the first two consisted 20 and 22 Bhutanese refugee seniors (over the age of 60), while the third consisted of 13 individuals from Burundi, Somali, Burma and other countries. While these focus groups were not formally part of this project, the PI helped to organize and coordinate these and as transportation emerged as a key concern, their results inform the broader study as a whole.

FINDINGS – SURVEYS

In our original study a total of 300 refugee community members responded to a survey conducted between January 2009 and December 2011 that asked a series of questions regarding refugees and transportation issues in Vermont. Participation was limited to refugees resettled since 2000, primarily from several African and Asian communities. Out of this original group of respondents, 147 were female and 31 were over the age of 60. This project therefore went back and reviewed the original results and examined them specifically with the lens of gender and age applied. All survey respondents lived within Chittenden County, with a majority residing in Burlington, Winooski, Colchester, South Burlington, Williston, and Essex. As mentioned previously, 98% of refugees live within this region. As the following map based on 2000 census data of the foreign born population in Vermont (of which approximately half are refugees) shows, they are spatially clustered within the towns listed above (such trends have intensified in the decade following the 2000 census):

Figure 1: Foreign Born Population, Chittenden County

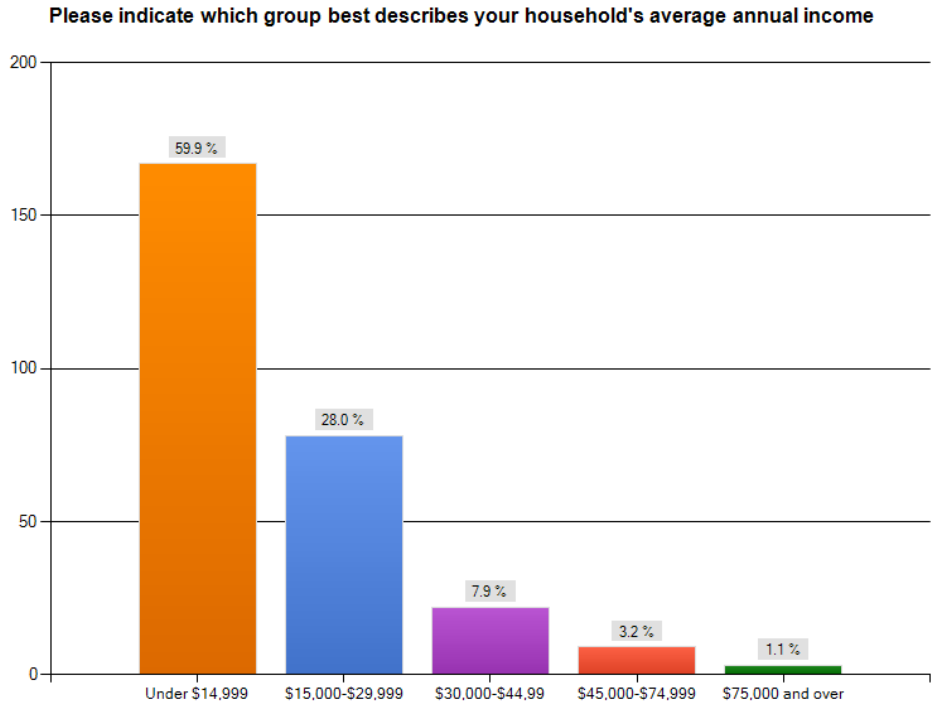


Particularly well represented in the original survey are refugees from Bhutan, Iraq, Somalia, Burundi, Congo, Burma, and Sudan, which are countries of

origin also reflected in the re-examination by gender and age. A majority of respondents in the original survey reported living in a household of more than 4 persons, 47.2% reported living in a household of more than 4 persons. 73.3% of respondent households had children, 88.8% of respondent households had more than 1 adult, while 24.5% of respondent households included someone over the age of 65. A small number (13.7%) included persons with disabilities. The majority of survey respondents were age 25 and older. All of the survey respondents noted that they were currently receiving either direct federal financial assistance or were being supported by local agencies and organizations such as VRRP, AALV, or city, state, and federal entities. A significant number also indicated that they were active members of an ethnic association or community group.

In terms of income, the respondents of this survey were – perhaps not surprisingly – of modest means:

Figure 2: Income of Refugee Respondents (All Groups)



This context of relatively large families and relatively low-income coupled with the fact that federal financial assistance for newly resettled refugees lasts only 8 months, makes it clearly of paramount importance for refugees to gain a job as quickly as possible. 31.9% of respondents reported being employed full-time, while a further 23.5% reported being employed part-time. A significant number (22.5%) reported being unemployed, much higher than both national and state averages. The employment figures are potentially skewed, however, by the participation of newly arrived refugees who have not yet gone onto the job market and the

particular circumstances of the economic recession which adversely affected job markets across the globe and was felt as keenly by refugees in Vermont as elsewhere in the world.

In terms of some other demographic data, our re-examination revealed the following distinctions. In terms of age ranges, the male participants were fairly evenly divided across all four groups (18-24, 25-34, 35-60, and 60+), while for women the largest number of participants was in the 25-34 category (34.5%) and the smallest (21.4%) in the senior category. When it comes to language proficiency – often mentioned as a key component of successful acculturation – we found that while women and seniors listed their levels as basic, significant numbers of male participants rated their speaking and reading skills as "good."

Table 2: Language Proficiency

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Proficiency in English (V = very good) (G = good) (S = satisfactory) (B = basic)	(G) Speaking 29.2% (B) Oral Comprehension 32.09% (G) Reading 27.94% (B) Writing 27.74%	(B) Speaking 45.8% (B) Oral Comprehension 41.0% (B) Reading 37.4% (B) Writing 37.4%	(B) Speaking 49.15% (B) Oral Comprehension 55.0% (B) Reading 49.15% (B) Writing 48.33%

Travel Needs

Turning to the main interest of this study – travel patterns, mode choice, and transportation behaviours – our survey highlighted some interesting similarities and distinctions in terms of the three populations. Respondents indicated the following as their sense of the time needed to get to destinations. Listed are the top choices for each group as the typical amount of time required to arrive at a destination (mode is not indicated).

Table 3: Travel Destinations and Times

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Doctor	15-30 min – 50.0%	15-30 min – 38.4%	15-30 – 38.98% Greater than 30 – 40.68%
Shopping	15-30 min – 41.2%	15-30 min – 36.1%	Greater than 30 – 41.38%
Work/school	15-30 min – 44.0%	15-30 min – 44.7%	Greater than 30 – 43.14%
Friends and family	5-15 min – 31.9% 15-30 min – 26.6% Greater 30 – 25.9%	15-30 min – 30.1% Greater 30 – 31.5%	15-30 – 27.59% Greater than 30 – 36.21%

There appears to be little difference between travel times to destinations based on the factors of age and gender, especially in the areas of work/school and shopping. However, more male participants did report having shorter travel times to both doctors' offices and visiting friends and family.

Table 4: Travel Away from Home

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Travel frequency	Once/day – 20.9% 2/day – 31.3% 5-10/week – 30.6% More than 10/week – 17.9%	Once/day – 32.9% 2/day – 34.3% 5-10/week – 17.9% More than 10/week – 15.0%	Once/day – 29.09% 2/day – 34.55% 5-10/week – 21.82% More than 10/week – 14.0%

When it came to travel frequency the study began to notice greater differences – while in all three groups significant numbers reported leaving the house once or twice a day (with each departure constituting a round-trip), far greater numbers of men left the house 5-10 times a week than did women or seniors. Participants were also asked what they considered their household's most important needs for transportation.

Table 5: Transportation Priorities

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Most important needs	School/work – 76.6%	School/work – 61.7%	School/work – 51.92%

While majorities of all three groups listed commuting to school and work as their top priority (as opposed to shopping and errands, medical services, and visiting friends and relatives), the numbers decrease from male to female and senior respondents.

The form of travel most used by refugees, according to our survey, is the bus:

Table 6: Most Common Mode Used

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Mode use	Car – 25.0% Bus – 57.6% Walk – 12.9% Bike – 4.5%	Car – 22.1% Bus – 56.4% Walk – 20.7% Bike – 0.07%	Car – 19.6% Bus – 55.3% Walk – 23.2% Bike – 1.79%

Roughly equivalent numbers in each category use cars and buses; however, much larger proportions of the senior and female populations tend to walk to their destinations. Part of this has to do with difficulties in obtaining either a driver's license or access to a car, and some of it has to do with unfamiliarity with the bus system.

Significant numbers of respondents also replied that they were either very familiar or somewhat familiar with bus routes, schedules, and fares.

Transit Usage

Table 7: Familiarity with Transit

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Familiarity with bus	Routes – Somewhat (45.7%) Schedules – Somewhat (42.4%) Fares – Somewhat (38.1%)	Routes – Somewhat (38.9%) Schedules – Very (31.2%) Fares – Very (34.8%)	Routes – Somewhat (46.43%) Schedules – Somewhat (34.55%) Fares – Somewhat (30.77%)

When asked about their comfort levels with using transit, much higher numbers of seniors and women reported being very dissatisfied with the existing transit system than did men – again, perhaps because they are more reliant upon them.

Table 8: Transit Satisfaction

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Transit satisfaction	Very sat – 18.2% Somewhat sat – 37.1% Somewhat dis – 31.8% Very dis – 12.9%	Very sat – 15.0% Somewhat sat – 42.1% Somewhat dis – 23.6% Very dis – 19.3%	Very sat – 11.54% Somewhat sat – 40.38% Somewhat dis – 23.08% Very dis – 25%

Similarly, significant differences are apparent between the genders when asked the question of whether or not they would be comfortable with having their children ride the bus alone – 40.3% of men replied "yes" while 33.6% replied "no", whereas 38.2% of women replied "yes" and 46.5% said no. In the case of seniors, their answers more closely mirrored those of men (45.61% "yes" and 33.33% "no"); the fact that women remain the primary caregivers for children and indicate higher levels of dissatisfaction than men may be part of the reason. When asked what their specific reasons for not taking the bus were, the answers were as follows:

Table 9: Reasons for Dissatisfaction with Transit

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Why not bus	No direct – 63.2% No bus near home – 20.8% No info – 16.0% Infrequent service – 51.9% No bus destination – 37.7%	No direct – 62.6% No bus near home – 22.5% No info – 32.4% Infrequent service – 62.2% No bus destination – 40.5%	No direct – 56.10% No bus near home – 17.0% No info – 31.7% Infrequent service – 65.8% No bus destination – 26.8%

A significant distinction here seems to lie in the amount of information available on the transit system, with women and the elderly reporting a greater lack of knowledge. Across all three groups, similar numbers indicated that night and

weekend bus service in particular needs to be improved with approximately 80% of all respondents rating the Vermont transit system in this respect as either poor or needing improvement. When asked which locations in particular needed to see better service from local transit, all respondents listed their main hometowns of Burlington, Winooski, Colchester, and especially the medical facilities at Tilley Drive in South Burlington. Roughly 40% of respondents in each group mentioned needing to travel regularly outside of the city, which all also noted as a challenge.

Given the problems with transit and the inability to get to destinations in a timely and cost-effective manner, it is perhaps not surprising then that despite the significant use of the bus that personal automobiles remain the mode of choice for refugees across all categories.

Automobiles

Table 10: Preferred Mode of Travel

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Preferred Mode	Car – 85.6% Bus – 8.3% Walk – 3.8% Bike – 2.3%	Car – 77.3% Bus – 13.5% Walk – 7.1% Bike – 2.1%	Car – 71.9% Bus – 14.0% Walk – 10.5% Bike – 3.51%

As is clearly visible in these responses, cars remain overwhelmingly the favoured option across all three groups. Interestingly all three other modes saw far higher favourable ratings amongst women and seniors, especially walking. Access to cars for refugees proved to be an altogether different matter – over 70% in each group reported not having a car. One of the key barriers outside of the expense of the car and insurance, was inability to obtain a driver's license, even for those with previous experience of having one.

Table 11: Driver's Licenses Amongst Refugees

Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Driver's license	No – 54.6% Yes – 30.77% Applying – 9.2%	No – 59.3% Yes – 23.57% Applying – 10.7%	No – 69.6% Yes – 17.86% Applying – 1.79%

While significant numbers of women have or have had driver's licenses and/or are applying, as the interview data described below shows this does not necessarily result in greater levels of automobility amongst this population. Finally, while barriers to car use remain considerable, carpooling remains a somewhat underutilized option.

Table 12: Carpooling

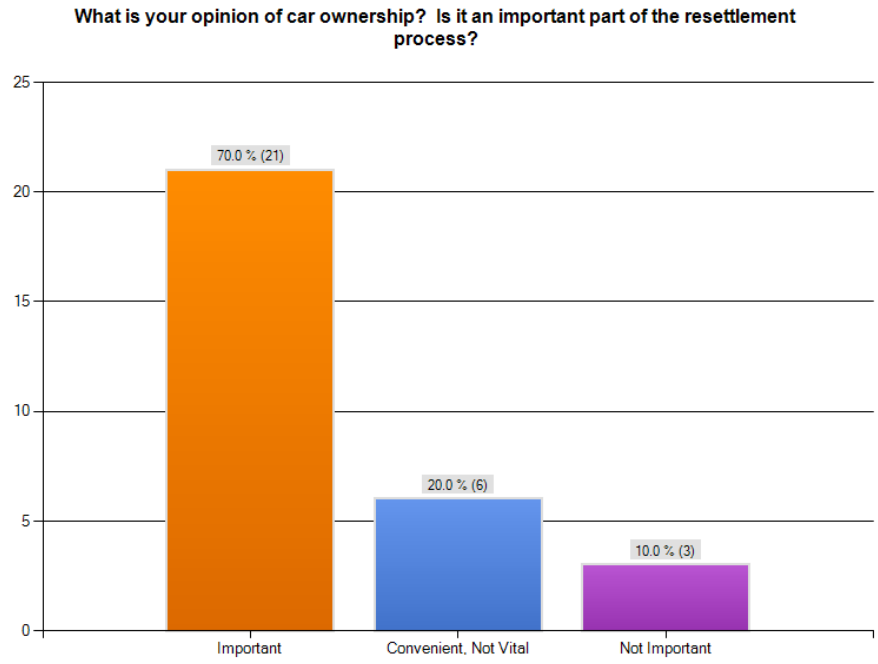
Question	Male (n=153)	Female (n=147)	Elderly (n=60)
Carpool	Co-workers – 9.4% Family – 19.7% Friends – 33.1% No – 49.6%	Co-workers – 4.3% Family – 17.3% Friends – 25.9% No – 60.4%	Co-workers – 1.79% Family – 16.07% Friends – 28.57% No – 58.93%

FINDINGS – INTERVIEWS

The project interviewed 30 women (FR=Female Refugee) and 10 seniors (SR=Senior Refugee) from across the various refugee communities to gain better insight into the specific transportation practices and preferences of newcomers. The vast majority of participants in both sets of interviews were from the Bhutanese community, reflecting the dominant resettled group since 2008 in Vermont. In total 8 of 10 seniors were Bhutanese, the others being Burmese and Burundian. 21 out of 30 women interviewed were also Bhutanese, with 1-2 representatives each from Burma, Somalia, Burundi, Sri Lanka, and Vietnam. All participants arrived in Vermont between 2008-2010 and participated in the earlier survey.

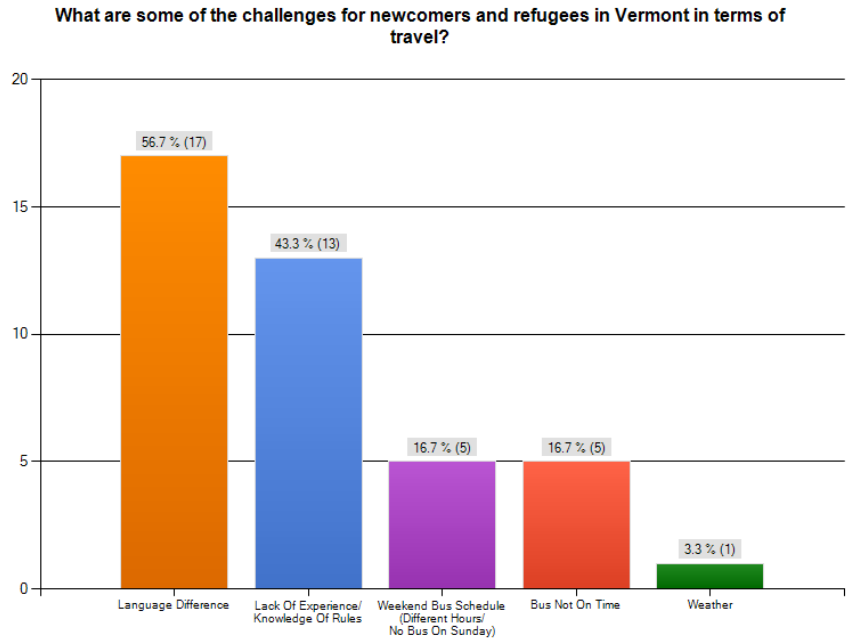
9 out of 10 seniors and 19 out of 30 women listed medical appointments as their primary reason for traveling, while 16 out of 30 women ranked shopping for groceries and other household goods as their second most important need. The majority of interviewees in both groups reported living relatively far from most of their destinations. At least half of both groups also noted that they needed to make a round-trip journey at least once a day. Majorities – 23/30 women and 6/10 seniors – said that they or their family owned a car (although how many drove the car is a different matter, as shown below). Of the seniors asked, 7 out of 10 also felt that having a car was an important part of the resettlement process. A similar proportion of women who were interviewed had a likewise opinion:

Figure 3: Female Interviewees' Opinion of Car Ownership



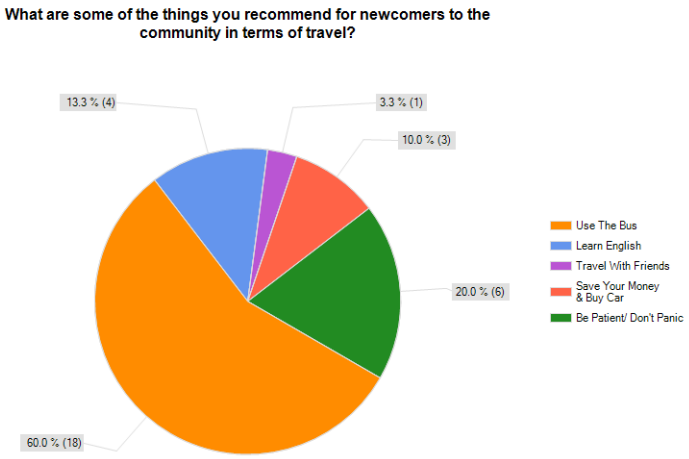
Use of public transit was very high amongst both sets of interviewees, with 8/10 seniors and 26/30 women regularly using the bus. When asked what types of specific challenges that newcomers and refugees in Vermont faced in terms of transportation, female interviewees responded with the following list:

Figure 4: Female Interviewees' List of Travel Challenges



Interestingly, when asked what their suggestions might be to newcomers, including some within their own communities, for adjusting to their new lives with regard to mobility, a majority of women listed using transit as a key component:

Figure 5: Female Interviewees' Recommendations



Delving more deeply into the interviews, there were multiple key themes that emerged out of discussions with women and seniors within the refugee population on the issues of gender, age and transportation. There are considerable overlaps between these various themes but there are six broad areas identified by our respondents of particular concern/interest to them. These are:

1. Climate and the distance to destinations
2. Opportunities
3. Improving the acculturation experience
4. Challenges to/of car ownership
5. Aspirations
6. Dependency

Climate and Distance to Destinations

Many of our interviewees – much like the general population – listed the climate of Vermont and in particular the challenges of snow and ice to be of significant concern. Such weather conditions – and navigating them through various modes of transport – are unfamiliar to many of the refugees.

- *Due to the snow in Vermont, it is very important to have a car here. Without a car it's very hard to commute long distances and cannot get on time to places (FR 29)*

- *I think you should own a car especially during the weekends and in the winter (FR 28)*

As with other seniors in the region, the weather conditions can prove an especially hazardous obstacle:

- *I fell last winter. I live alone. There was no transportation and with limited English I couldn't ask for help. Snow and ice make travel very hard (SR 7)*

- *No sidewalks in many places, hard to walk in snow and ice (SR 3)*

Such conditions lead many to look to car ownership to address the problem:

- *Yes we do own a car right now. And I think it important because to get to places we really require one especially to get to work and also sometime to do the laundry and grocery before the car it was terrible because carrying everything on the back or strolling you know the 15 minute walk during the winter was terrible, it was absolutely cold and the hands were freezing so it was difficult at that time and it was a short lift at that time now we do own a car (FR 13)*

Utilitarian concerns are also at the heart of some of the complaints regarding using available transit to avoid the worst of the winter. Indeed, the words of one interviewee:

- *The most important challenge the new comers are facing is riding the bus to get to far away appointments (FR 1)*

At the core of this criticism seems to be the distance to destinations (and the inability to use transit to bridge this gap (also due to language barriers):

- *The most challenge is the transportation. We live very far away, it is hard to go for shopping (FR 19)*

- *Learning bus schedule is difficult because of language, cannot get to places because of language and travel (SR 5)*

However, even with the perceived problems with transit, many refugees recognize that it is their best option (albeit while waiting to purchase a car):

- *The bus is very useful especially for new people because they do not have a car so it is very important to use it and know the way around which is very important (FR 2)*

Opportunities

Our interviewees mentioned both opportunities to be gained and those currently being lost because of gaps in the transportation system. In some cases this meant an inability to attend culturally significant events:

- *There are lots of challenges, for example here we have to meet with the communities to practice for dancing they do not come because they do not have transportation and some of them have the small children, small babies It is hard to prepare them and just catch bus on time. Most of the time they miss the activities because of that (FR 3)*

Others mentioned work, school and shopping and the general necessities of life made more or less inaccessible due to their mobility:

- *Son owns car, but he uses for work. In VT public transportation is hard without car and feels like stuck. Children cannot go to school and work. It is cold outside- long time to wait. If you have many appointments it might not happen (FR 22)*

- *We just bought old one [car]. It feels good it is very convenient to have a car. Helps a lot. It is important to have a car to go to work (FR 7)*

- *Yeah having a car is very important here because without car we cannot go to job as we need car to go everywhere so car is very important. Shopping, hospital, work everywhere we need a car (FR 24)*

One interviewee noted her preference for transit yet said that despite this she recognized the significance of having a car:

- *In reality I do not feel like it is important, but especially here feels like you need to have a car in order to get a job (FR 25)*

Improving the Acculturation Experience

Reaching such destinations is an important part of securing better resettlement outcomes. Indeed, several interviewees affirmed the connection between mobility and acculturation:

- *Life will be easy and it is easy to go shopping far away. It is an important part of the resettlement process (FR 9)*

- *Yeah I think that every family need to have a car to make their life very easier because VT we have lots of cold days raining, winter. Taking a bus is convenient but you can save a lot of money taking a bus but if you have job, children then it is good to have a car because it will make your life easier (FR 15)*

- *I am very happy that we have a car, it is easy to go shopping and buy more things, it is hard to get many things on the bus. If we have to take children to the appointment we reach on time sometime on bus it takes a time (FR 21)*

- *We do not have a car. It will be very convenient. We could go anywhere we wish to. It will be easy to go anywhere. I think it is very important part of the resettlement process (FR 30)*

- *Without transportation there is no possibility in this state. Car is very important (FR 1)*

Challenges to/of Car Ownership

While many refugees in both the initial and this follow-up study highlight the importance of cars, they simultaneously point out how difficult it is to actually secure either a car or – perhaps more significantly – a driver's license:

- *You have to follow rules and regulation and you need a license to drive a car. if everyone is working then it is good to own a car then its very convenient sometime if emergency occur or if someone has to go to shopping then its*

important. But it is not necessary that everyone should have a car, they can ride a bus. You have to think before buy one as it cost a lot (F3 10)

Other costs associated with car ownership were also mentioned by respondents:

- *It is very hard to own a car because being the gas very expensive, the buses is not on time. It is really hard (SR 3)*

- *Yes, it is important part of resettlement, but some refugees cannot afford one, you know when they enter country they cannot buy a car, they cannot buy everything like gas to run car, then on top of that you have to have a insurance for the car and registration. They cannot go through all these process. Some people have lots of appointment, and sometime the buses are not always there or on time especially in Winooski there are some places where the bus doesn't run in certain times. And then they need to have a car because they cannot walk to their appointments (FR 11)*

Several respondents – especially amongst the refugee women interviewed – noted that while there was a utilitarian purpose for having a car, their preference would be for a better transit system to meet their travel needs:

- *It is good to have a car, but sometime it is good to have public transportation. It is much more important to have a public transportation than a car (FR 26)*

Aspirations

Despite these challenges, cars remain a very clear aspiration for many of the refugee women and seniors the study interviewed:

- *Yeah thank lord, we are very lucky because everyone has a car and makes life very easier (SR 4)*

- *I am very happy to have a car. I have never imagined that someday we will have a car and will drive someday. I am very happy that god helped us get a car and helped us own one (FR 14)*

Yet others give voice to the idea that acquiring a car as a goal is part of a trajectory of adjusting to life in a new country – saving money to eventually afford one:

- *We work and save money and buy the used car then later update some better car. (FR 16)*

- *I will tell people to work hard save up money and buy a car. So most of the refugees do not use bus, very rare. I think we work so hard so we need car to go places to places much faster (SR 6)*

- *Compare to other states there is no problem in riding or getting bus, the bus is much more convenient. We don't need a car but sometime the bus comes late, so we need a car. I heard from my relative that the bus is not so convenient and they must purchase car. I have heard stories like that (FR 8)*

Dependency

The theme that emerged perhaps most clearly from our interviews with women and seniors in the refugee communities alike was the notion that barriers to mobility had a significant and negative impact on their independence. Many interviewees reported having to rely on others – whether friends, other members of their communities, service providers, case workers, or volunteers through the resettlement agencies – to assist them:

- *Transportation is the biggest challenge. We also do not have a car and always have to ask people to assist us (FR 20)*

- *If I had a car then I would be self-dependent, I wouldn't have to rely on other people to help me move from to one place to another. It would be very easy and could go anywhere in a convenient way. I would feel that I am very independent (FR 6)*

- *You need a car it is very necessary to have one because some grocery store is very far. It is very hard to ask friend all the time because they go to work. If they are on their way to grocery it is easy to go with them, but it is hard to ask if they aren't going. It is very necessary to have a car (FR 23)*

- *It would be nice to have a car. We have to always ask for help. It is hard to get many things from the market. My husband also goes to work with someone who has a car.*

For many of the respondents the dependency was quite often within the family, where those who did have greater levels of mobility tended to be male members – usually husbands and sons. This is a pattern that emerged repeatedly:

- *My husband owns a car (FR 8)*

- *Yeah we have a car now. My husband drives to work and sometime to go to shopping we take a car, he will drive me (FR 14)*

- *We have a car my husband drives it (FR 17)*

- *We own car, my husband only drives (FR 18)*

- *My husband drives me (FR 21)*

- *My husband recently just bought a car, I do not know how to drive a car yet .He takes a car to work and for shopping car is very convenient and also to commute for my husband's job (FR 29)*

- *My son drive me to garden (SR 1)*

- *We have one car. I do not drive but my husband and son drive it. If we have our own car then it is very easy, if we have to go to Costco we do not have to ask other people we can easily go during the holiday. Even to go to work is very accessible and can come sooner to home after work. If we have a car then it is very convenient.*

- *One of my sons has a car, but he has to take it to work and the other is very ill so he cannot drive a car. I cannot travel without help (SR 2)*

- *I have no Medicaid or bus pass. I was told I don't qualify for Medicaid because I am fewer than 65. But without bus pass I cannot travel without my son who drives. (SR 10)*

ANALYSIS

Based on these findings, this study suggests that there are indeed some discernible differences in the travel patterns, preferences and options within sub-groups of the recently resettled refugee communities in Vermont. While having access to cars through their families, both women and seniors appear to have primary roles as passengers rather than drivers, lack driving licenses, and are more likely to use other modes of travel, including walking and transit. Despite this fact, both groups expressed a consistent belief that having a car would make their acculturation experience occur in an easier fashion.

How do refugee attitudes and practices regarding mobility compare to the general population? The most relevant peer group are the residents of Chittenden County, where 98&% of refugees are located. According to the 2012 Transportation Survey of 512 residents (which may or may not have included refugees) conducted at the behest of the Chittenden County Regional Planning Commission (RSG, 2012), we see the following trends within the county:

- Driving alone is the most dominant mode of travel (72% of respondents)
- Walking (11%) and carpooling (9%) are the next two most popular modes
- Transit (4%) remains a significantly under-utilized mode within the county as a whole
- 65% of respondents regard driving as a pleasant experience
- Respondents had overwhelmingly positive responses to the transit system, with satisfaction rates in the 70% range on questions regarding fares, safety and information to lower (but still positive) ratings for service, routes and schedules
- Bicycling again found positive support within the survey but remains a far less popular activity for residents to take up

Many of these trends are reflected in refugee transportation behaviours. Refugees certainly utilize the transit system in particular at far higher rates than the general population of Chittenden County. This leads, perhaps, to the understandably higher levels of dissatisfaction with their actual experience of bus travel. The language barrier also may play a significant role in this process.

Keeping the broader transportation trends in mind in which driving is the dominant mode within the communities that they have resettled, it is not surprising therefore that the aspiration for greater mobility within the refugee communities is for personal automobility through private vehicle ownership. Having a car can, indeed, provide significantly greater levels of freedom, independence, and improve options and outcomes. Refugees with access to a car – especially one that they can drive themselves – may be able to apply for more jobs including late night shifts that

they could not access via existing transit or walking/bicycling, which may in turn lead to better jobs in the future. They may be able to drive to find better or perhaps more culturally appropriate foods – for example, while several ethnic grocery stores have been established to serve refugee communities, they are clustered within one hub of settlement in the Old North End neighbourhood of Burlington, while far fewer serve refugee groups settled in the towns of Winooski and Essex; access to a car would bridge that gap. Refugees may also be able to have more flexibility in terms of medical appointments and procedures simply by having more options in where to go to seek help – being able to drive to the Tilley Drive facilities is a clear example of this. Finally, access to a car might help to improve educational opportunities to refugee children and adults alike – the opportunity to participate in night classes and before- and after-school activities alike, for example.

Beyond such utilitarian and practical outcomes, this study suggests that existing transportation hierarchies that place the car at the top of the pyramid are reinforced through the refugee resettlement (and more broadly immigrant acculturation) process. It is not merely that cars provide greater levels of mobility and improve outcomes – it is that owning and operating one's own car is a seemingly logical and obvious outcome of bettering one's adjustment to a new society, one that in the context of the general publics of the US, Vermont, and Chittenden County, is firmly articulated as a car culture. For refugees arriving in Vermont, therefore, it is not surprising that they would reflect such beliefs and practices.

Yet as this study suggests, while refugees may show evidence of reinforcing the primacy of car travel and car culture, not all of them have the same experience of automobility. Indeed, interviews with women and seniors within the refugee communities would suggest that existing barriers within both these populations and within the resettlement process as a whole can reinforce inequities when it comes to mobility. While many refugees have some level of access to cars, lack of language, lack of driver training, lack of gender equity, and other factors, lead to very different levels of independence and autonomy if one is a senior or female within many of these refugee communities.

APPENDIX – INTERVIEW QUESTIONS

1. Where were you born and where have you lived most of your life?
2. When did you arrive in Vermont?
3. What is the most common reason you need to travel?
4. Do you live close to the places you need to get to? Can you walk to them or do you need to take the bus or drive?
5. How often do you need to travel?
6. Do you or your family own a car?
7. What is your opinion of car ownership? Is it an important part of the resettlement process?
8. Do you use public transit?
9. What are some of the challenges for newcomers and refugees in Vermont in terms of travel?
10. What are some of the things you recommend for newcomers to the community in terms of travel?

REFERENCES

Bittner, J., Fuchs, P., Baird, T., & Smith, A. 2011. *Addressing Elderly Mobility Issues in Wisconsin*. No. CFIRE 0405.

Blumenberg, Evelyn, and Smart, Michael. 2010. "Getting by with a little help from my friends...and family: immigrants and carpooling" *Transportation* (2010) 37: 429-446.

Blumenberg, Evelyn. 2008. "Immigrants and Transport Barriers to Employment: The Case of Southeast Asian Welfare Recipients in California," *Transport Policy*, 15: 33-42.

Chatman, Daniel G., and Klein, Nicholas. 2009. "Immigrants and travel demand in the United States: implications for transportation policy and future research" *Public Works Manage Policy* 13(4), 312–327.

Clifton, Kelly, and Lucas, Karen. 2004. "Examining the Empirical Evidence of Transport Inequality." In Lucas, Karen (ed) *Running on Empty: Transport, Social Exclusion and Environmental Justice*. Bristol: Policy.

Cultural Orientation Resource Center. 2010. "Transportation Overview: Public Transportation versus Car Ownership Debate" Accessed September 17, 2010. Available from http://www.cal.org/co/overseas/toolkit/transportation/debate-Accra.html

Deka, Devajyoti. 2004. "Social and Environmental Justice Issues in Urban Transportation," In Hanson, Susan and Guiliano, Genevieve (eds). 2004. *The Geography of Urban Transportation*. 3rd Ed. New York: The Guilford Press, 332-355.

Dluhy, Milan, Revell, Keith and Wong, Sidney. 2002. "Creating a Positive Future for a Minority Community: Transportation and Urban Renewal Politics in Miami." *Journal of Urban Affairs* 24 (1): 75-96.

Dupuis, J, Weiss, R. & Wolfson, C. 2007. Gender and transportation access among community-dwelling seniors. *Canadian Journal on Aging*, 26(2): 149-158.

Fernando, P. & Porter, G. 2002. Introduction: bridging the gap between gender and transportation, in Fernando, P. & Porter, G. (eds.) *Balancing the Load: Women, Gender and Transport*, 1-14. London: Zed Books.

Frank, L., Kerr, J., Rosenberg, D., & King, A. 2010. *Journal of Physical Activity and Health*, 7 (Suppl 1): 82-90.

Garasky, Steven, Fletcher, Cynthia Needles, and Jensen, Helen H. 2006. "Transiting to Work: the Role of Private Transportation for Low-Income households." *Journal of Consumer Affairs* 40 (1): 64-89.

Handy, S. 2010. Gender and mobility: new approaches for informing sustainability. *Gender, Place and Culture*, 17 (1): 5-23.

Hanson, Susan and Guiliano, Genevieve (eds). 2004. *The Geography of Urban Transportation*. 3rd Ed. New York: The Guilford Press.

Haynes, Kingsley E., Gifford, Jonathan L., and Pelletiere, Danilo. 2005. "Sustainable Transportation Institutions and Regional Evolution: Global and Local Perspectives." *Journal of Transport Geography* 13 (3): 207-221.

Kwan, M. 1999. Gender and individual access to urban opportunities: a study using space-time measures. *The Professional Geographer*, 51 (2): 211-227.

Law, R. 1999. Beyond 'women and transport': towards new geographies of gender and daily mobility. *Progress in Human Geography*, 23 (4): 567-588.
Lovejoy, K. & Handy, S. 2011. Social networks as a source of private-vehicle transportation: The practice of getting rides and borrowing vehicles among Mexican immigrants in California. *Transportation Research A*, 45: 248-257.
Lucas, Karen, (ed) 2004a. *Running on Empty: Transport, Social Exclusion and Environmental Justice*. Bristol: Policy.
Lucas, Karen. 2004b. "Transport and Social Exclusion." In Lucas, Karen (ed) *Running on Empty: Transport, Social Exclusion and Environmental Justice*. Bristol: Policy.
Lucas, Karen. 2006. "Providing Transport for Social Inclusion within a Framework for Environmental Justice in the UK." *Transportation Research Part A: Policy & Practice* 40 (10): 801-809.
Lyons, Glenn. 2004. "Transport and Society." *Transport Reviews* 24 (4):485-509.
Mann, Eric. 2004. "Los Angeles Bus Riders Derail the MTA." In Bullard, Robert D., Johnson, Glenn S., and Torres, Angel O. (eds) *Highway Robbery: Transportation Racism and New routes to Equity*, Cambridge, MA: South End Press, 33-48.
Miller, Kenneth and Rasco, Lisa. 2004. *The Mental Health of Refugees: Ecological Approaches to Healing and Adaptation*. Mahwah, NJ: Lawrence Erlbaum Publishers, Inc.
Office of Refugee Resettlement. 2004. *Welcome to the United States: A Guidebook for Refugees*. 3rd Edition. Washington, DC: Center for Applied Linguistics Cultural Orientation Resource Center.
Portes, Alejandro, and Rumbaut, Ruben G. 2008. *Immigrant America: A Portrait*. 3rd Edition. Berkeley: University of California Press.
Resource Systems Group. 2012. *Chittenden County Regional Planning Commission Transportation Survey*. Burlington: CCRPC.
Roorda, Matthew et al. 2009. "Trip Generation of Vulnerable Populations in Three Canadian Cities: Spatial Ordered Probit Approach." *Transportation Research Board Annual Meeting 2009* Paper #09-2162 http://pubsindex.trb.org/view.aspx?id=881593
Schweitzer, Lisa and Valenzuela, Abel. 2004. "Environmental Injustice and Transportation: The Claims and the Evidence." *Journal of Planning Literature* May 2004, 18: 383-398.
Tal, G. & Handy, S. 2010. Travel behavior of immigrants: An analysis of the 2001 National Household Transportation Survey. *Transport Policy*, 17: 85-93.
Venter, Christoffel. 2009. "Transport Expenditure of Elderly, Disabled, and Poor Travelers: The Cost of Being Mobile." Transportation Research Board Annual Meeting 2009 Paper #09-0994 http://pubsindex.trb.org/view.aspx?id=880948
VRRP. 2012. Vermont Refugee Resettlement Progam [Cited December 24, 2012]. Available from http://www.vrrp.org